



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Lazzeroni, John J. et al.

DOCKET NO.: P6145.62004

SERIAL NO.: 09/923,280

EXAMINER: Pendleton, Brian T.

FILED: August 6, 2001

ART UNIT: 2644

TITLE: MULTI-ACCESSORY VEHICLE AUDIO SYSTEM, SWITCH AND METHOD

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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CERTIFICATE OF MAILING

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By: Katherine C. Maas
Katherine C. Maas

TRANSMITTAL OF BRIEF ON APPEAL

Dear Sir:

Pursuant to the provisions of 37 C.F.R. 1.192, the appellant is hereby submitting three (3) copies of a Brief on Appeal in the above-captioned patent application.

Please charge the \$250.00 appeal brief filing fee required by 37 C.F.R. 1.17(c), and any other cost or credit any overpayment associated with the filing of this Brief on Appeal, to our Deposit Account No. 17-0055.

Respectfully submitted,

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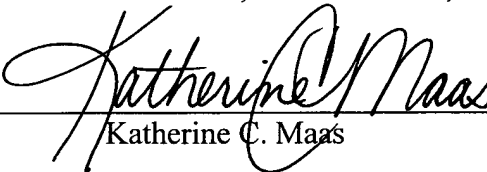
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Katherine C. Maas

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TO THE COMMISSIONER FOR PATENTS

BRIEF ON APPEAL

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Dear Sir:

This is an appeal from the final rejection dated 02 November 2005.

REAL PARTIES IN INTEREST

The real parties in interest are the appellants, John J. Lazzeroni and Larry E. Stafford.

RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are currently pending.

STATUS OF CLAIMS

Claims 1-37 were filed originally. These included the independent apparatus claim 1 and its dependent claims 2-19; the independent apparatus claim 20 and its dependent claims 21-30; and the independent method claim 31 and its dependent claims 32-37.

No claims have been canceled. Claims 1, 18, 20 and 31 have been amended.

Claims 1-37 are on appeal.

STATUS OF AMENDMENTS

No amendment was filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is an independent claim directed to a multi-accessory vehicle audio system 100 (Fig 1; and page 8, lines 8-11). The audio system 100 comprises a plurality of vehicle audio accessories 102, 104, 106, 108, 110, 112 and 114 which generate a corresponding plurality of audio signals (Fig. 1; and page 8, lines 19-21; page 9, lines 10-11; and page 10, lines 1-2 and 7-11). The audio system 100 further comprises an audio switching device 120 which includes an input section 122 adapted to receive the plurality of audio signals from the plurality of vehicle audio accessories 102,104,106,108,110,112,114 and to transmit the plurality of audio signals (Fig. 1; and page 11, lines 4-6 and 13-14). The audio switching device 120 also includes a controller 126 adapted to receive the plurality of audio signals from the input section 122, to respond to an instruction set and to produce control signals (Fig. 1; and page 10 line 18 to page 11, line 3). The audio switching device 120 additionally includes a switching section 124 adapted to receive the plurality of audio signals from the input section 122, to receive the control signals produced by the controller 126 and to produce an output audio signal (Fig. 1; and page 10, line 18 to page 11, line 3). Moreover, the audio switching device 120 includes an output section 128 adapted to receive the output audio signal from the switching section 124 (Fig. 1; and page 21, line 22 to page 22, line 1).

Claim 20 is another independent claim directed to a vehicle audio system switching device 120 for switching a plurality of vehicle audio accessories 102, 104, 106, 108, 110, 112 and 114 which generate a corresponding plurality of audio signals. The vehicle audio system switching device

120 comprises an input section 122 adapted to receive the plurality of audio signals from the plurality of vehicle audio accessories 102,104,106,108,110,112,114 and to transmit the plurality of audio signals (Fig. 1; and page 11, lines 4-6 and 13-14). The audio switching device 120 also comprises a controller 126 adapted to receive the plurality of audio signals from the input section 122, to respond to an instruction set and to produce control signals (Fig. 1; and page 10 line 18 to page 11, line 3). The audio switching device 120 additionally comprises a switching section 124 adapted to receive the plurality of audio signals from the input section 122, to receive the control signals produced by the controller 126 and to produce an output audio signal (Fig. 1; and page 10, line 18 to page 11, line 3). Moreover, the audio switching device 120 comprises an output section 128 adapted to receive the output audio signal from the switching section 124 (Fig. 1; and page 21, line 22 to page 22, line 1).

Claim 31 is a further independent claim directed to a method for switching signals in a multi-accessory vehicle audio system 100 having a plurality of vehicle audio accessories 102, 104, 106, 108, 110, 112 and 114 which generate a corresponding plurality of audio signals (Fig. 1; and page 8, lines 19-21; page 9, lines 10-11; and page 10, lines 1-2 and 7-11). The method comprises receiving the plurality of audio signals at an input section 122, transmitting the plurality of audio signals from the input section 122, receiving the plurality of audio signals from the input section 122 at a controller 126 and producing a control signal at the controller 126 in response to an instruction set (Fig. 1; and page 26, lines 4-13). The method further comprises receiving the plurality of audio signals from the input section 122 at a switching section 124, receiving the control signal from the controller 126 at the switching section 124 and outputting

an output audio signal from the switching section 124 in response to the received control signal (Fig. 1; and page 26, lines 4-13).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- A. A first ground of rejection is that of claims 1-4, 7, 8, 10, 14, 15, 17-21, 25, 26, 28-32, 36 and 37 under 35 USC 103(a) over U.S. Patent No. 5,722,069 to Donner in view of U.S. Patent No. 4,484,344 to Mai.
- B. A second ground of rejection is that of claim 5 under 35 USC 103(a) over Donner and Mai taken with U.S. Patent No. 6,272,362 to Wang.
- C. A third ground of rejection is that of claim 6 under 35 USC 103(a) over Donner and Mai considered with U.S. Patent No. 3,586,977 to Lustig.
- D. A fourth ground of rejection is that of claim 9 under 35 USC 103(a) over Donner and Mai in combination with U.S. Patent No. 6,420,975 to DeLine.
- E. A fifth ground of rejection is that of claims 11, 22 and 33 under 35 USC 103(a) over Donner and Mai in view of U.S. Patent No. 5,910,996 to Eggers and U.S. Patent No. 5,243,640 to Hadley.

F. A sixth ground of rejection is that of claims 12, 23 and 34 under 35 USC 103(a) over Donner and Mai taken with DeLine and Eggers as well as U.S. Patent No. 5,635,925 to Kishi.

G. A seventh ground of rejection is that of claims 13, 24 and 35 under 35 USC 103(a) over Donner, Mai and Eggers.

ARGUMENT

For convenience, the appellants have attached as Exhibit A a copy of the drawings filed in the above-identified application. The drawings consist of Figures 1, 2, 3A, 3B, 4, 5, 6A, 6B, 7, 8, 9, 10A, 10B, 11 and 12.

Also for convenience, the appellants have attached as Exhibit B copies of the references relied upon by the Examiner in the final rejection of the claims.

A. First ground of rejection – Rejection of claims 1-4, 7, 8, 10, 14, 15, 17-21, 25, 26, 28-32, 36 and 37 under 35 USC 103(a) over U.S. Patent No. 5,722,069 to Donner in view of U.S. Patent No. 4,484,344 to Mai

Donner discloses an entertainment system for an automobile equipped with two front speakers 5 and 6 as well as two rear speakers 7 and 8. The entertainment system includes an entertainment unit 1 which is designed to play entertainment media, e.g., cassettes or compact discs, of low quality. The entertainment system further includes an entertainment unit 2 which is designed to play entertainment media of high quality. A switching unit 3 consisting of switches S1, S2, S3,

S4, S5 and S6, or switches SS1, SS2, SS3 and SS4, allows the entertainment units 1,2 to be selectively connected to the speakers 5,6,7,8. A controller 4 monitors signals from the entertainment units 1,2 and regulates the switching unit 3 in such a manner that, depending upon the signals from the entertainment units 1,2, one or both of the entertainment units 1,2 is connected to the speakers 5,6,7,8. For example, if the sole occupant of the automobile is a driver listening to a high quality entertainment medium playing in the high quality entertainment unit 2, all four speakers 5,6,7,8 would be connected to the high quality entertainment unit 2. On the other hand, if the automobile contains not only the driver but also a child in a rear seat listening to a low quality entertainment medium playing in the low quality entertainment unit 1, the controller 4 might connect the front speakers 5,6 to the high quality entertainment unit 2 and the rear speakers 7,8 to the low quality entertainment unit 1. The controller 4 may refer to a table stored in a memory 20 for appropriate settings of the switching unit 3 corresponding to different combinations of signals from the entertainment units 1,2. The Donner entertainment system eliminates the need for using a high quality entertainment unit to play a low quality entertainment medium which could damage the high quality entertainment unit.

The entertainment system of Donner may optionally comprise displays 23,24, a mobile telephone 30 and a mobile video on demand interface system 32. The displays 23,24, the mobile telephone 30 and the mobile video on demand interface system 32 are directly connected to the switching unit 3.

Mai discloses a voice operated switch for separating noise from a composite voice/noise signal traveling along a transmission channel 10 from a non-illustrated communication voice line or

radio receiver to a non-illustrated device such as an audio amplifier. The voice operated switch includes a low pass filter 14, an envelope detector 16 and a syllabic rate filter 18 which together constitute a means for separating a voice signal from noise. The output from the syllabic rate filter 18 enters a full wave rectifier 20 which develops a unipolar signal for transmission to an amplifier 22. The output of the amplifier 22 is clamped such that a low level state indicates the absence of a voice signal and a high level state indicates the presence of a voice signal. An analog comparator 24 compares the output of the amplifier 22 with a reference signal and produces an output indicative of the absence or presence of a voice signal. An analog switch 12 is enabled if a voice signal is present whereas the switch 12 is disabled in the absence of a voice signal. A hold circuit 28 prevents the analog switch 12 from opening and closing at a syllabic rate and chopping up a voice signal.

In rejecting claims 1-4, 7, 8, 10, 14, 15, 17-21, 25, 26, 28-32, 36 and 37 over Donner and Mai, the Examiner states that Donner discloses a plurality of vehicle audio accessories 1,2; a switching section 3 coupled to the vehicle audio accessories 1,2; a controller 4 for receiving the audio signals from the vehicle audio accessories 1,2 and providing control signals to the switching section 3; and an output section containing speakers 5-8. The Examiner further states that Donner discloses a mobile telephone 30 with a microphone as one of the audio accessories and that an instruction set is found in memory section 20.

The Examiner goes on to say that Donner does not disclose an explicit input section for receiving the audio signals from the vehicle audio accessories and coupling the signals from the input section to the switching section and the controller. However, the Examiner considers the low

pass filter 14 of Mai to constitute an input section. In this regard, the Examiner remarks that the benefit of a low pass filter is to make a voice/no voice determination. The Examiner holds that it would have been obvious to include the circuitry of Mai in the mobile telephone 30 of Donner in order to switch on the telephone 30 in the course of the user speaking. Hence, the Examiner is of the opinion that the independent apparatus claims 1 and 20, as well as the independent method claim 31 and its dependent claim 36, are met by Donner as modified in view of Mai.

The appellants disagree with this rejection. To begin with, the Board's attention is respectfully directed to the fact that the voice activated switch of Mai is connected to only a single audio accessory. Accordingly, even if the low pass filter 14 of Mai is construed as an input section, Mai fails to teach that this input section receives audio signals from a plurality of audio accessories as recited in the claims. Clearly, Mai then also fails to teach an input section which, per the claims, supplies audio signals from a plurality of audio accessories to a controller as well as a switching section. Since Donner likewise does not teach an input section which receives audio signals from a plurality of audio accessories, it follows that the claims cannot be obvious from a combination of Donner and Mai.

The Board's attention is also respectfully drawn to the fact that, in contrast to the claims, the voice activated switch of Mai is not even adapted to receive a plurality of audio signals from a plurality of audio accessories or to transmit such a plurality of audio signals.

Furthermore, the Board is respectfully requested to note that the mobile telephone 30 in Fig. 6 of Donner is connected solely to the switching unit 3 which receives control signals from, but

transmits no signals to, the controller 4. Thus, even if the circuitry of Mai were incorporated in the mobile telephone 30 of Donner as proposed by the Examiner, and even if the low pass filter 14 of Mai were considered an input section as suggested by the Examiner, the low pass filter 14 in the modified system of Donner would not supply audio signals to the controller 4 of Donner. In contrast, the claims call for a controller which receives audio signals from an input section. Consequently, the system of Donner as modified by Mai differs from the claims which are therefore not obvious from Donner and Mai.

In addition to the above, the appellants do not see that there is any motivation in Donner or Mai to include the circuitry of Mai in the system of Donner. While the Examiner believes that one of ordinary skill would incorporate the circuitry of Mai in the system of Donner for the purpose of switching on the telephone in the course of the user speaking, the appellants are of the opinion that this is by no means the case. If the circuitry of Mai were used to switch on the telephone of Donner in response to speech, the telephone would switch on during a conversation between occupants of the vehicle or in response to voices from the entertainment units of Donner. Since this would seem to be undesirable, the appellants believe that the Examiner's reasoning for including the circuitry of Mai in the system of Donner is faulty.

Re: claim 8

Claim 8 specifies that the vehicle audio accessories include a general mobile communications device (please see page 10, lines 1-6 of the appellants' specification for examples of such a device). Neither Donner nor Mai teaches a device of this type.

Re: claims 10 and 21

Claims 10 and 21 set forth that the vehicle accessories comprise a first level music source and a second level music source; and that the input section comprises a switch for switching between the first and second music sources. As indicated previously, Donner lacks an input section. On the other hand, even if the low pass filter 14 of Mai is considered to be an input section as proposed by the Examiner, such low pass filter 14 is devoid of a switch capable of switching between two music sources. Hence, the arrangement of claims 10 and 21, in which an input section includes a switch for switching between first and second music sources, cannot be forthcoming from Donner and Mai.

Re: claims 17 and 28

Claims 17 and 28 recite a microphone audio signal and an instruction in the instruction set for controlling the switching section in response to the microphone audio signal. Even assuming that the mobile telephone 30 in Fig. 6 of Donner inherently has a microphone as stated by the Examiner, it will be observed that the mobile telephone 30 is connected only to the switching unit 3 which transmits no signals to the controller 4. Thus, neither the controller 4 of Donner nor the memory 20 coupled thereto is able to receive a microphone audio signal from the mobile telephone 30 so that the instruction set in the memory 20 cannot control the switching unit 3 in response to such a microphone audio signal.

Re: claims 18, 29 and 37

Claims 18, 29 and 37 specify that the input section has a microphone audio signal path and a low pass filter in the path. Claims 18, 29 and 37 further specify that the instruction set comprises: (a) an instruction for comparing a microphone audio signal with the low pass filter output to obtain a voice difference signal; and (b) an instruction for controlling the switching section in response to the voice difference signal. The appellants respectfully point out that, even if the low pass filter 14 of Mai is construed as an input section, claims 18, 29 and 37 are not obtained from a combination of Donner and Mai. In this regard, the Board is respectfully requested to note that the low pass filter output of Mai is not compared with a microphone audio signal as recited in claims 18, 29 and 37 but, rather, is compared with a reference threshold potential.

B. Second ground of rejection – Rejection of claim 5 under 35 USC 103(a) over Donner and Mai taken with U.S. Patent No. 6,272,362 to Wang

Claim 5 sets forth that the vehicle audio accessories include a headset microphone, and Wang is applied as disclosing a hands-free headset which includes a microphone and is designed for use with a mobile telephone. The Examiner states that it would be obvious to incorporate the headset of Wang in the apparatus of Donner as modified by Mai inasmuch as a hands-free headset is of benefit when using a mobile telephone while driving.

The appellants note that the headset microphone of claim 5 supplies an audio signal to an input section which, in turn, supplies the audio signal to both a controller and a switching section. In the apparatus of Donner as modified by Mai, the low pass filter 14 of Mai, which the Examiner

considers an input section, is connected solely to the switching unit 3 of Donner which does not transmit signals to the controller 4. Hence, even if it were obvious to connect the headset of Wang to the mobile telephone 30 of the Donner apparatus as modified by Mai, the headset microphone of Wang, contrary to the headset microphone of claim 5, would not supply audio signals to an input section which then supplies the audio signals to a controller.

C. Third ground of rejection – Rejection of claim 6 under 35 USC 103(a) over Donner and Mai considered with U.S. Patent No. 3,586,977 to Lustig

Claim 6 recites that the vehicle audio accessories comprise a pair of headset microphones, and Lustig is applied to teach such microphones. The Examiner states that Lustig shows a pair of headset microphones having a switching system for switching between intercom signals and a radio broadcast signal, and the Examiner holds that it would be obvious to include these headset microphones in the apparatus of Donner as modified by Mai so as to provide intercommunication among occupants of a vehicle.

The appellants respectfully draw the Board's attention to the fact that the headset microphones of Lustig are designed for intercommunication between a driver and a passenger of a motorcycle. Since the apparatus of Donner as modified by Mai is installed in an automobile, there is no motivation for one of ordinary skill to incorporate the headset microphones of Lustig in the modified Donner apparatus.

D. Fourth ground of rejection – Rejection of claim 9 under 35 USC 103(a) over Donner and Mai in combination with U.S. Patent No. 6,420,975 to DeLine

Claim 9 specifies that the vehicle audio accessories comprise a radar detection system. DeLine is applied as disclosing a radar detection system which can be incorporated in an audio system, and the Examiner is of the opinion that it would be obvious to include the radar detection system of DeLine in the apparatus of Donner as modified by Mai for the purpose of providing a driver with radar detection signals.

The appellants have been unable to find a disclosure of a radar detection system in DeLine and accordingly believe that claim 9 is not obtained from Donner, Mai and DeLine.

E. Fifth ground of rejection – Rejection of claims 11, 22 and 33 under 35 USC 103(a) over Donner and Mai in view of U.S. Patent No. 5,910,996 to Eggers and U.S. Patent No. 5,243,640 to Hadley

Claims 11, 22 and 33 recite a general mobile communications device and a citizen's band radio, and these claims further recite combining an audio signal from the general mobile communications device with an audio signal from the citizen's band radio. The Examiner states that the combination of Donner and Mai includes a general mobile communications device 30 but not a citizen's band radio, and Eggers is applied to teach such a radio. Hadley is applied as disclosing that the audio signal from a radio can be combined with the audio signal from a phone, and the Examiner holds that it would be obvious to combine the audio signal from the citizen's band radio of Eggers with the audio signal from the general mobile communications device 30 of Donner in order that the audio signal from the citizen's band radio not be interrupted during a telephone call on the general mobile communications device 30.

To begin with, the appellants have already pointed out in regard to claim 8 that neither Donner nor Mai teaches a general mobile communications device. Since the same appears to be true for Eggers and Hadley, claims 11, 22 and 33 are not derived from a combination of these four references.

Moreover, the appellants fail to follow the Examiner's reasoning that it would be obvious to combine the audio signal from the citizen's band radio of Eggers with the audio signal from the mobile telephone 30 of Donner so as not to interrupt the audio signal from the citizen's band radio during a call on the mobile telephone 30. Thus, the appellants do not see any purpose in maintaining the audio signal from the citizen's band radio when a telephone call is in progress, and the appellants do not believe that one of ordinary skill in the art would be motivated to do so.

F. Sixth ground of rejection – Rejection of claims 12, 23 and 34 under 35 USC 103(a) over Donner and Mai taken with DeLine and Eggers as well as U.S. Patent No. 5,635,925 to Kishi

Claims 12, 23 and 34 specify a geographic designation system and a radar detection system, and such claims additionally specify combining an audio signal from the geographic designation system with an audio signal from the radar detection system. The Examiner states that the combination of Donner and Mai does not include a radar detection system or a geographic designation system, and DeLine and Kishi are applied as disclosing a radar detection system and a geographic designation system, respectively.

The Examiner goes on to say that Eggers combines signals from several audio accessories in an automobile to ensure that the audio output from a first accessory is not interrupted by a second accessory. The Examiner holds that it would be obvious to combine the audio signals from the radar detection system of DeLine with the audio signals from the geographic designation system of Kishi to prevent interruption of the signals from the geographic designation system when a signal is transmitted by the radar detection system.

First of all, as noted in the earlier discussion of claim 9, the appellants have been unable to find a disclosure of a radar detection system in DeLine. Inasmuch as Donner, Mai, Kishi and Eggers likewise fail to teach a radar detection system, claims 12, 23 and 34 are not obtained from a combination of these five references.

Furthermore, the apparatus of Eggers is designed to allow a user to listen to two audio programs simultaneously with one program playing in the foreground and another in the background. The appellants do not see where Eggers provides any motivation to the person of ordinary skill to combine an audio signal from a radar detection system with an audio signal from a geographic designation system as set forth in claims 12, 23 and 34. The Examiner's statement that it would be obvious to do so is based on a retrospect knowledge of the appellants' disclosure and not on the teachings of Eggers.

Additionally, the Board is respectfully requested to note that the use of five references in the rejection of claims 12, 23 and 24 is itself an indication of unobviousness.

G. Seventh ground of rejection – Rejection of claims 13, 24 and 35 under 35 USC 103(a) over Donner and Mai considered with Eggers

Claims 13, 24 and 35 specify leveling of the audio signals with respect to one another. The Examiner states that the combination of Donner and Mai does not comprise circuitry for leveling the audio signals with reference to each other but that Eggers discloses leveling circuitry. The Examiner is of the opinion that it would be obvious to incorporate the leveling circuitry of Eggers in the apparatus of Donner as modified by Mai for the purpose of prioritizing the signals from the low and high quality entertainment units of Donner.

The appellants do not understand why there would be a need to prioritize the signals from the low and high quality entertainment units of Donner. The apparatus of Donner is constructed in such a manner that: (a) when an entertainment medium is present only in the high quality entertainment unit, the speakers of Donner broadcast audio signals from the high quality entertainment unit only; (b) when an entertainment medium is present only in the low quality entertainment unit, the speakers of Donner broadcast audio signals from the low quality entertainment unit only; and (c) when an entertainment medium is present in both the low and high quality entertainment units, two speakers broadcast audio signals from the low quality entertainment unit and two speakers broadcast audio signals from the high quality entertainment unit. In view of the design of the Donner apparatus, there is no motivation for one of ordinary skill to prioritize the signals from the low and high quality entertainment units so that claims 13, 24 and 35 do not become obvious from Donner and Mai taken with Eggers.

In light of the foregoing, it is respectfully requested that the rejections of the claims be reversed in their entirety.

Please charge any cost associated with this Brief on Appeal to our Deposit Account No. 17-0055.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G. Milczarek-Desai', written in a cursive style.

Gavin Milczarek-Desai
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CLAIMS APPENDIX

1. A multi-accessory vehicle audio system comprising:
 - a plurality of vehicle audio accessories, the vehicle audio accessories generating a corresponding plurality of audio signals; and
 - an audio switching device comprising an input section adapted to receive the plurality of audio signals from the plurality of vehicle audio accessories and to transmit the plurality of audio signals,
 - a controller adapted to receive the plurality of audio signals from the input section, to respond to an instruction set, and to produce control signals;
 - a switching section adapted to receive the plurality of audio signals from the input section, to receive the control signals produced by the controller, and to produce an output audio signal; and
 - an output section adapted to receive the output audio signal from the switching section.
2. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a music source.
3. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a first level music source and a second level music source.

4. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a microphone.
5. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a headset microphone.
6. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a pair of headset microphones.
7. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a wireless communications device.
8. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a general mobile communications device.
9. A multi-accessory vehicle audio system as recited in claim 1, wherein the vehicle audio accessories comprise a radar detection system.
10. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle audio accessories comprise a first level music source and a second level music source; and the input section comprises a switch for switching between the first and second music sources.

11. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and

the input section includes coupling circuitry for combining the general mobile communications device audio signal and the citizen's band radio audio signal.

12. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle audio accessories comprise a geographic designation system having a geographic designation system audio signal and a radar detection system having a radar detection system audio signal; and

the input section includes coupling circuitry for combining the geographic designation system audio signal and the radar detection audio signal.

13. A multi-accessory vehicle audio system as recited in claim 1, wherein the input section includes signal leveling circuitry for leveling the audio signals with respect to one another.

14. A multi-accessory vehicle audio system as recited in claim 1, wherein the switching section comprises a plurality of switches.

15. A multi-accessory vehicle audio system as recited in claim 1, wherein the switching section comprises a plurality of analog switches.

16. A multi-accessory vehicle audio system as recited in claim 1, wherein the controller comprises a programmable controller chip.

17. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle audio accessories comprise a microphone having a microphone audio signal; and
the instruction set comprises an instruction for controlling the switching section in response to the microphone audio signal.

18. A multi-accessory vehicle audio system as recited in claim 1, wherein: the vehicle audio accessories comprise a microphone audio signal;
the input section comprises a microphone audio signal path and a low pass filter in the microphone audio signal path, the low pass filter having a low pass filter output;
the instruction set comprising an instruction for comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal and an instruction for controlling the switching section in response to the voice difference signal.

19. A multi-accessory vehicle audio system as recited in claim 1, wherein the output section comprises a pair of speakers.

20. A vehicle audio system switching device for switching a plurality of vehicle audio accessories, the vehicle audio accessories generating a corresponding plurality of audio signals, the vehicle audio system switching device comprising:

an input section adapted to receive the plurality of audio signals from the plurality of vehicle audio accessories and to transmit the plurality of audio signals,

a controller adapted to receive the plurality of audio signals from the input section, to respond to an instruction set, and to produce control signals;

a switching section adapted to receive the plurality of audio signals from the input section, to receive the control signals produced by the controller, and to produce an output audio signal; and

an output section adapted to receive the output audio signal from the switching section.

21. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle accessories comprise a first level music source and a second level music source; and

the input section includes a switch for switching between the first and second music sources.

22. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and

the input section includes coupling circuitry for combining the general mobile communications device audio signal and the citizen's band radio audio signal.

23. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a geographic designation system having a geographic designation system audio signal and a radar detection system having a radar detection system audio signal; and

the input section includes coupling circuitry for combining the geographic designation system audio signal and the radar detection audio signal.

24. A vehicle audio system switching device as recited in claim 20, wherein: the input section includes signal leveling circuitry for leveling the audio signals with respect to one another.

25. A vehicle audio system switching device as recited in claim 20, wherein the switching section comprises a plurality of switches.

26. A vehicle audio system switching device as recited in claim 20, wherein the switching section comprises a plurality of analog switches.

27. A vehicle audio system switching device as recited in claim 20, wherein the controller comprises a programmable controller chip.

28. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the instruction set comprises an instruction for controlling the switching section in response to the microphone audio signal.

29. A vehicle audio system switching device as recited in claim 20, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal;

the input section comprises a microphone audio signal path and a low pass filter in the microphone audio signal path, the low pass filter having a low pass filter output;

the instruction set comprising an instruction for comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal and an instruction for controlling the switching section in response to the voice difference signal.

30. A vehicle audio system switching device as recited in claim 20, wherein the output section comprises a pair of speakers.

31. A method for switching signals in a multi-accessory vehicle audio system having a plurality of vehicle audio accessories, the vehicle audio accessories generating a corresponding plurality of audio signals, the method comprising:

receiving the plurality of audio signals at an input section and transmitting the plurality of audio signals from the input section;

receiving the plurality of audio signals from the input section at a controller;

producing a control signal at the controller in response to an instruction set;

receiving the plurality of audio signals from the input section and a switching section;

receiving the control signal from the controller at the switching section; and

outputting the an output audio signal from the switching section in response to the received control signal.

32. A method recited in claim 31, wherein:

the vehicle accessories comprise a first level music source and a second level music source; and

the method comprises switching between the first and second music sources.

33. A method recited in claim 31, wherein:

the vehicle audio accessories comprise a general mobile communications device having a general mobile communications device audio signal and a citizen's band radio having a citizen's band radio audio signal; and the method comprises combining the general mobile communications device audio signal and the citizen's band radio audio signal.

34. A method recited in claim 31, wherein:

the vehicle audio accessories comprise a geographic designation system having a geographic designation system audio signal and a radar detection system having a radar detection system audio signal; and

the method comprises combining the geographic designation system audio signal and the radar detection audio signal.

35. A method recited in claim 31, further including leveling the audio signal with respect to one another.

36. A method recited in claim 31, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the method comprises controlling the switching section in response to the microphone audio signal.

37. A method recited in claim 31, wherein:

the vehicle audio accessories comprise a microphone having a microphone audio signal; and

the method further includes passing the microphone audio signal path through a low pass filter to obtain a low pass filter output, comparing the microphone audio signal with the low pass filter output to obtain a voice difference signal, and controlling the switching section in response to the voice difference signal.

EVIDENCE APPENDIX

EXHIBIT A--Figures 1, 2, 3A, 3B, 4, 5, 6A, 6B, 7, 8, 9, 10A, 10B, 11 and 12 of the above-identified application.

EXHIBIT B--References relied upon by the Examiner in the final rejection of the claims:

1. U.S. Patent No. 5,722,069 to Donner.
2. U.S. Patent No. 4,484,344 to Mai et al.
3. U.S. Patent No. 6,272,362 to Wang.
4. U.S. Patent No. 3,586,977 to Lustig et al.
5. U.S. Patent No. 6,420,975 to DeLine et al.
6. U.S. Patent No. 5,910,996 to Eggers et al.
7. U.S. Patent No. 5,243,640 to Hadley et al.
8. U.S. Patent No. 5,635,925 to Kishi et al.

EXHIBIT A

Figures 1, 2, 3A, 3B, 4, 5, 6A, 6B, 7, 8, 9, 10A, 10B, 11 and 12 of the above-identified application.

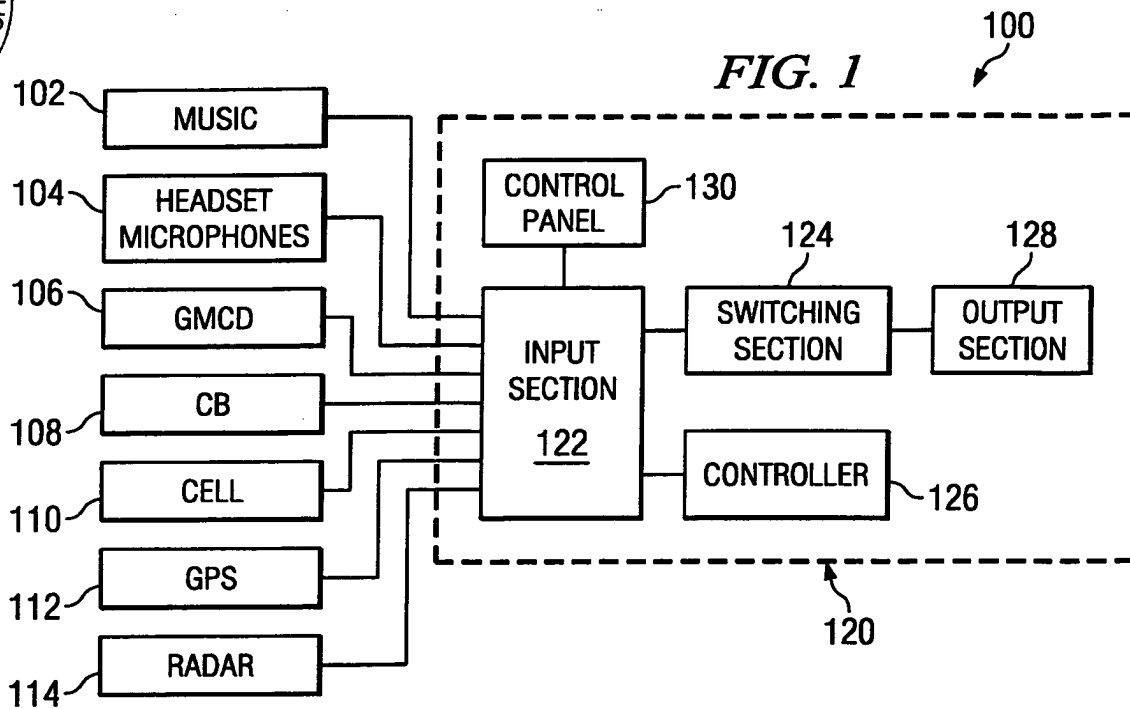
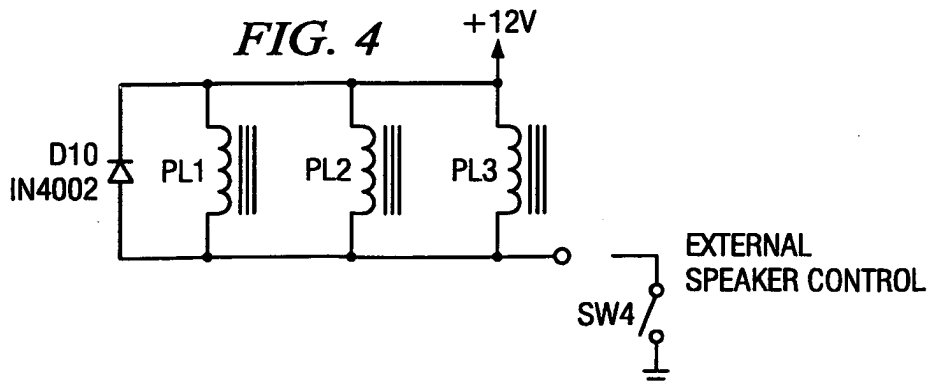
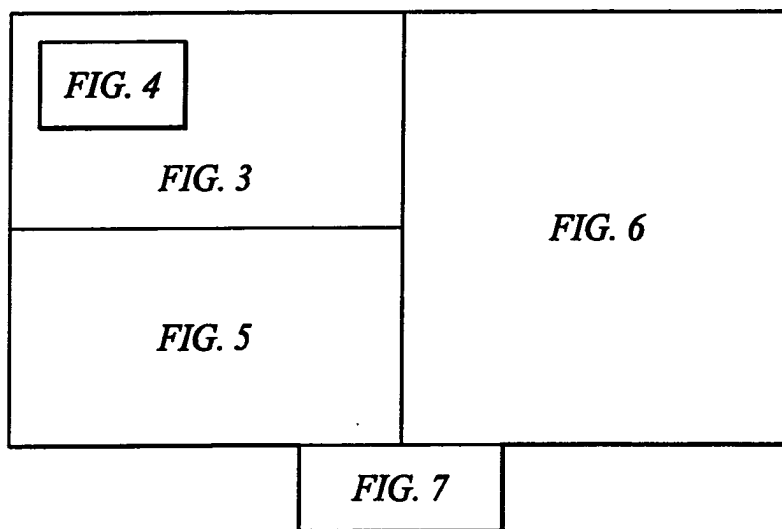


FIG. 2



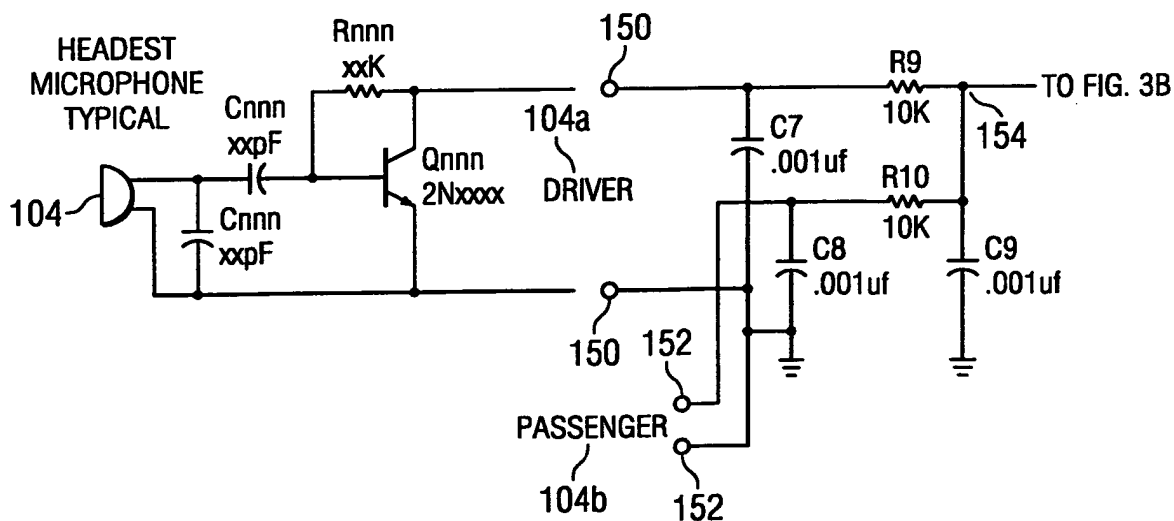
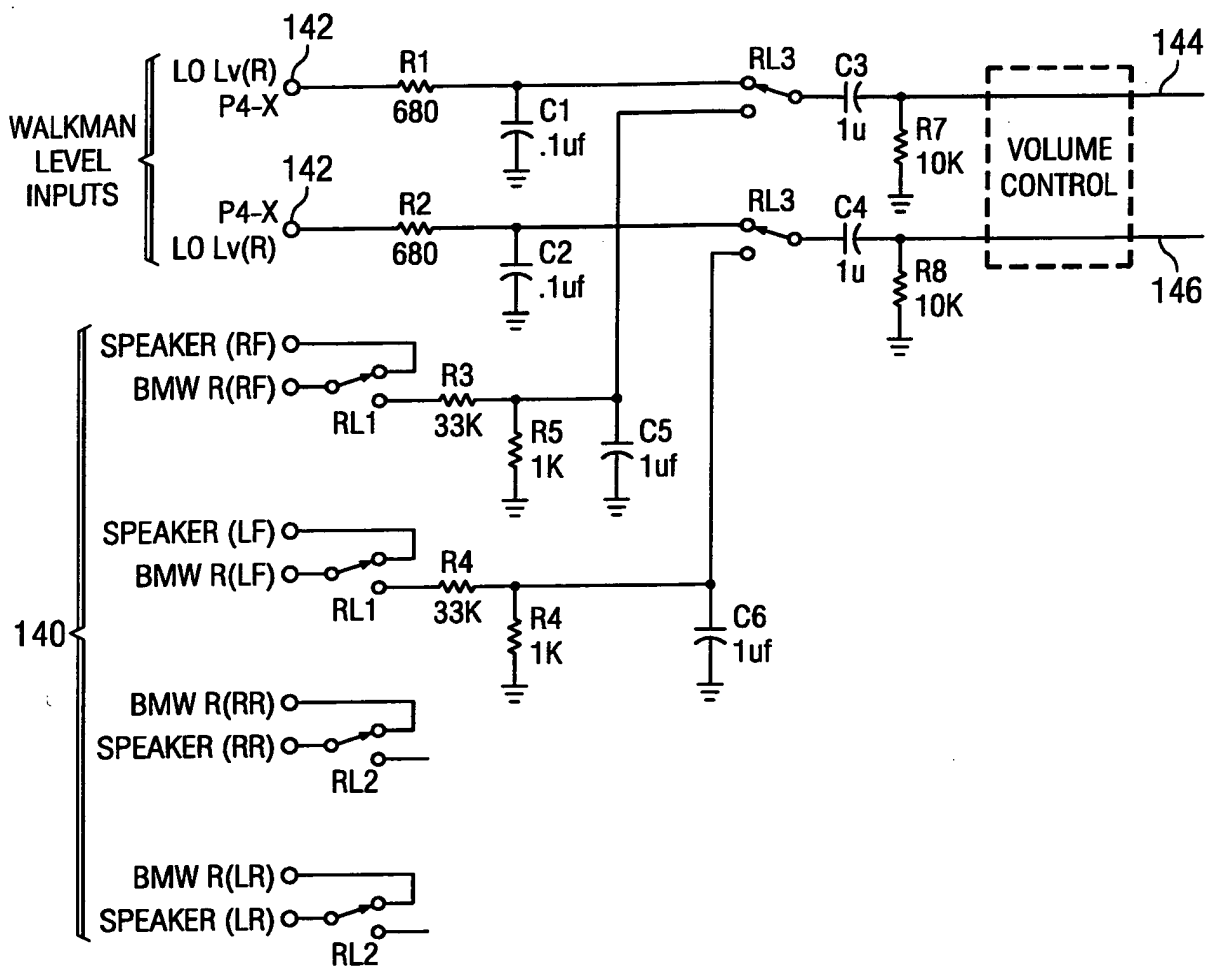


FIG. 3A

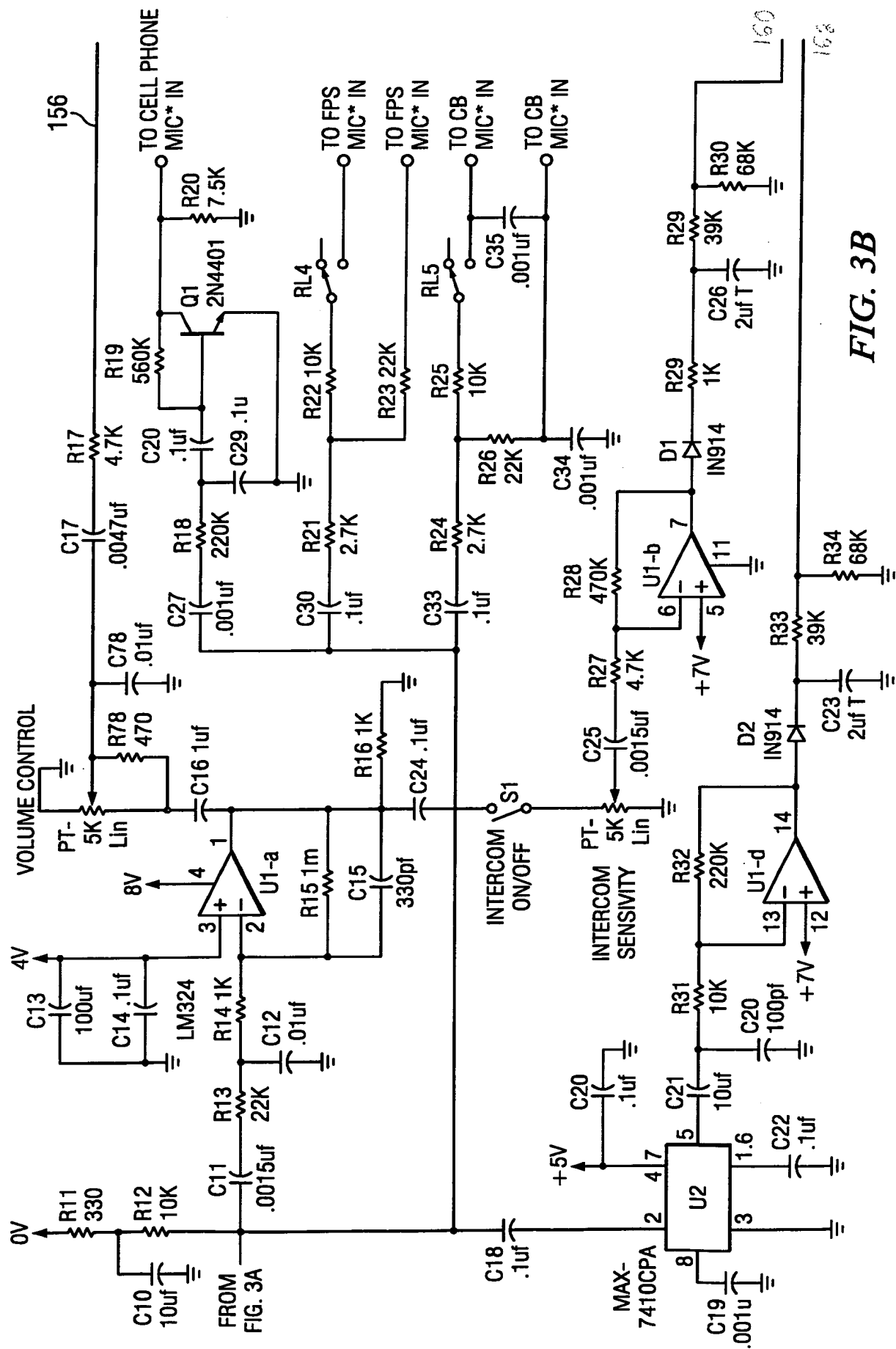
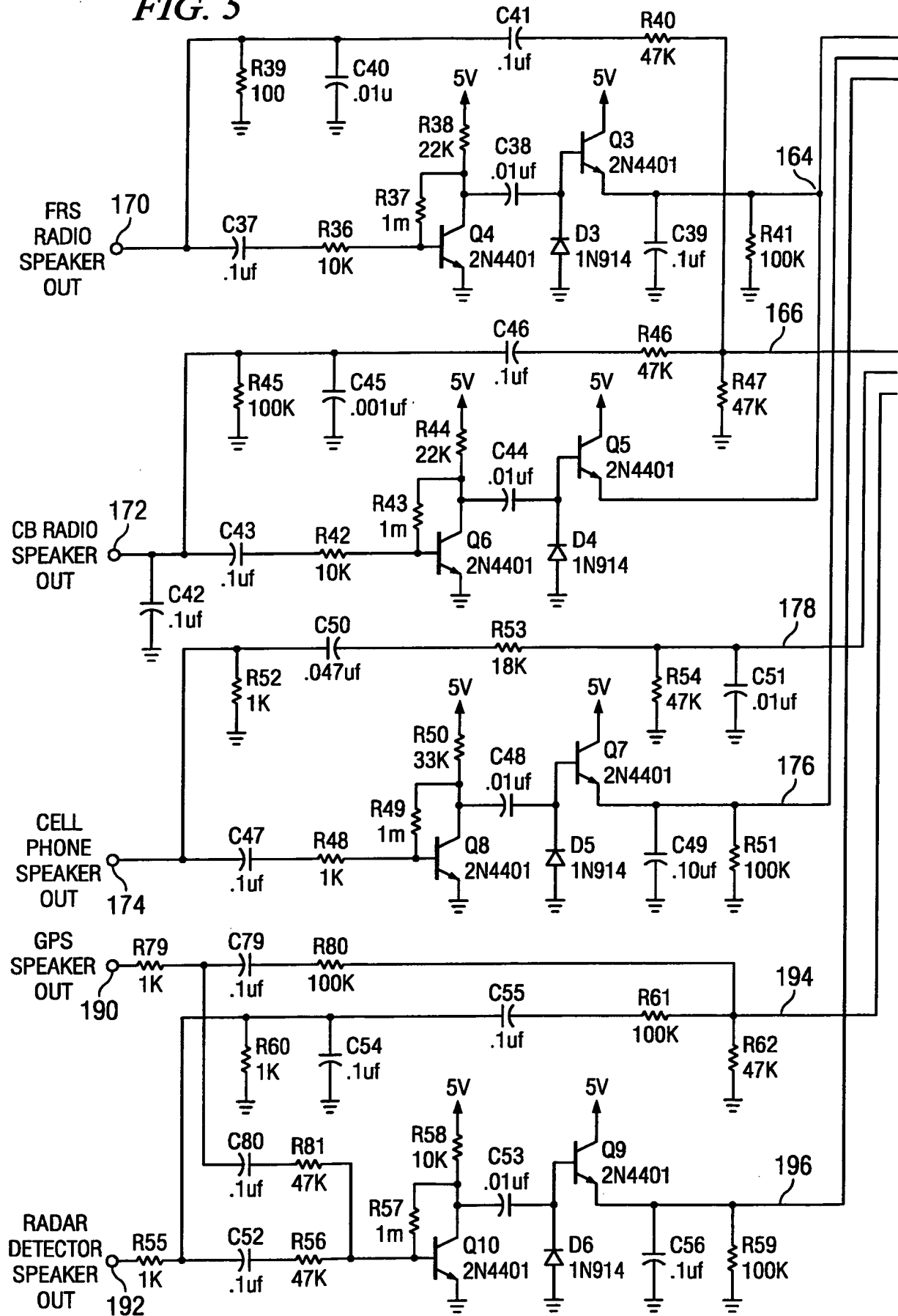
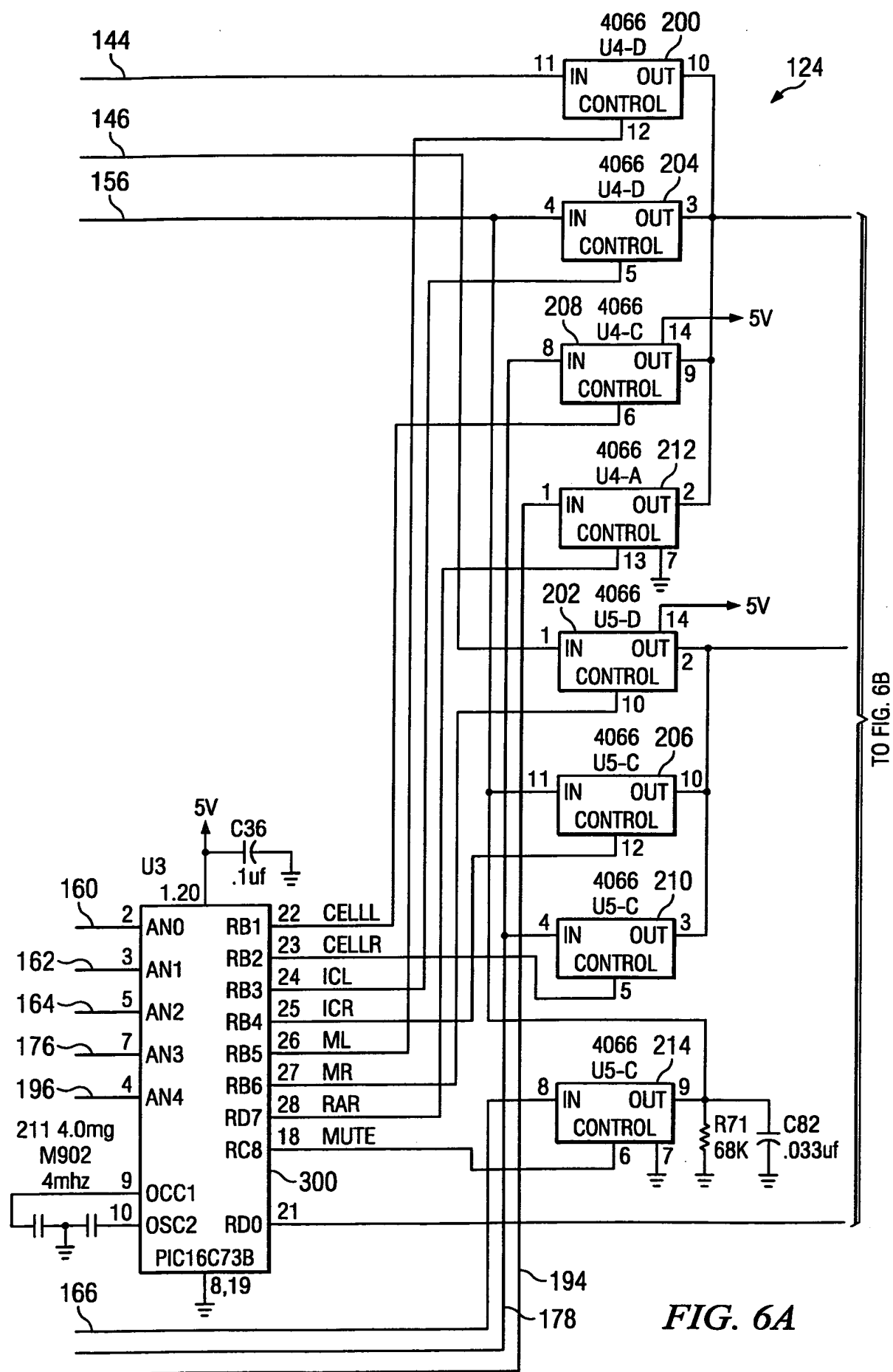


FIG. 5





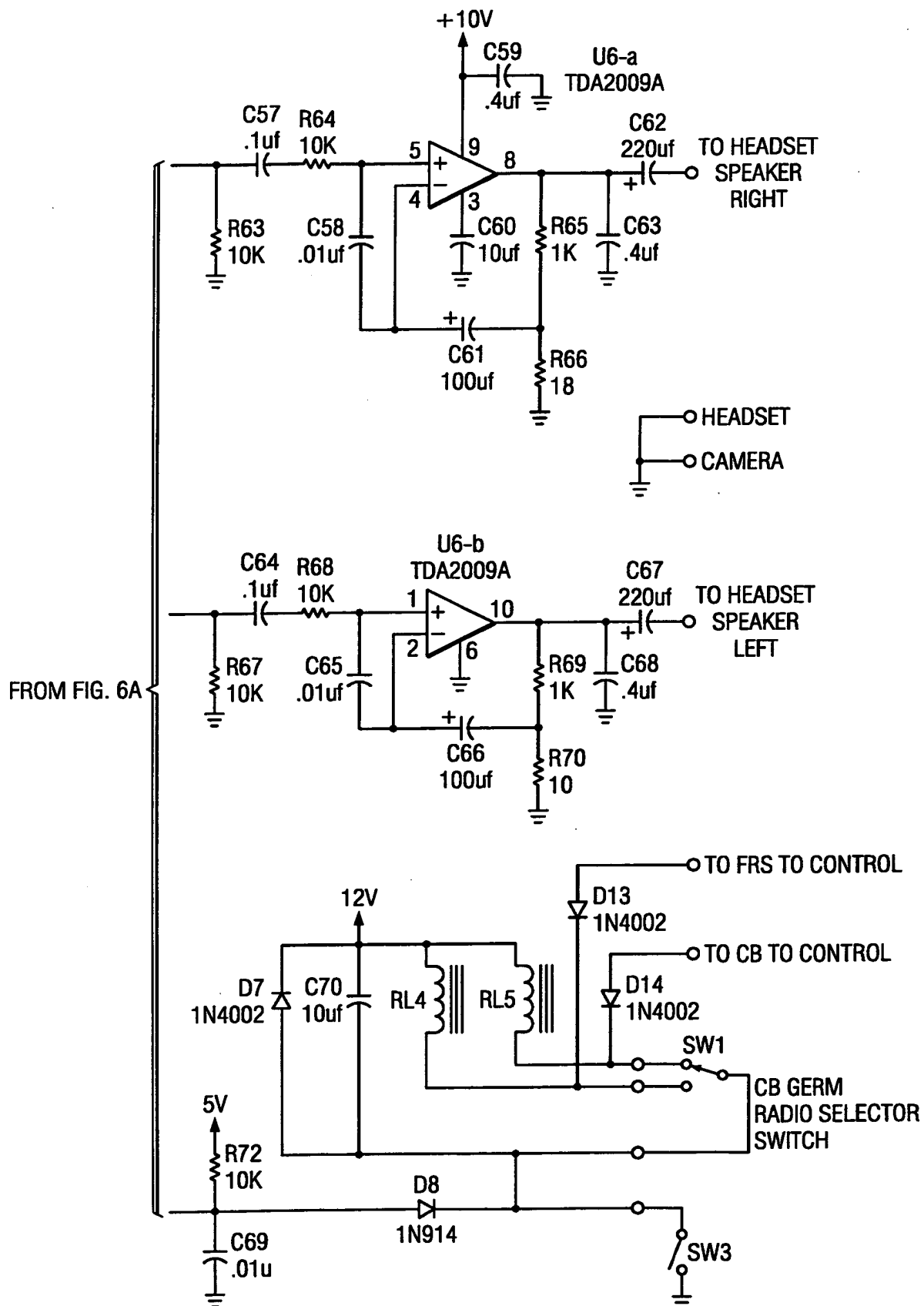


FIG. 6B

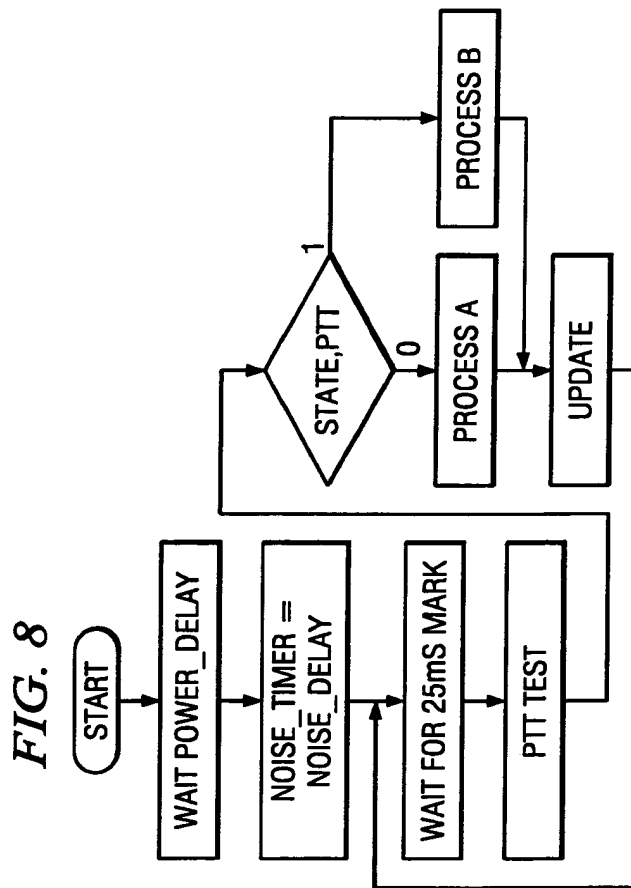
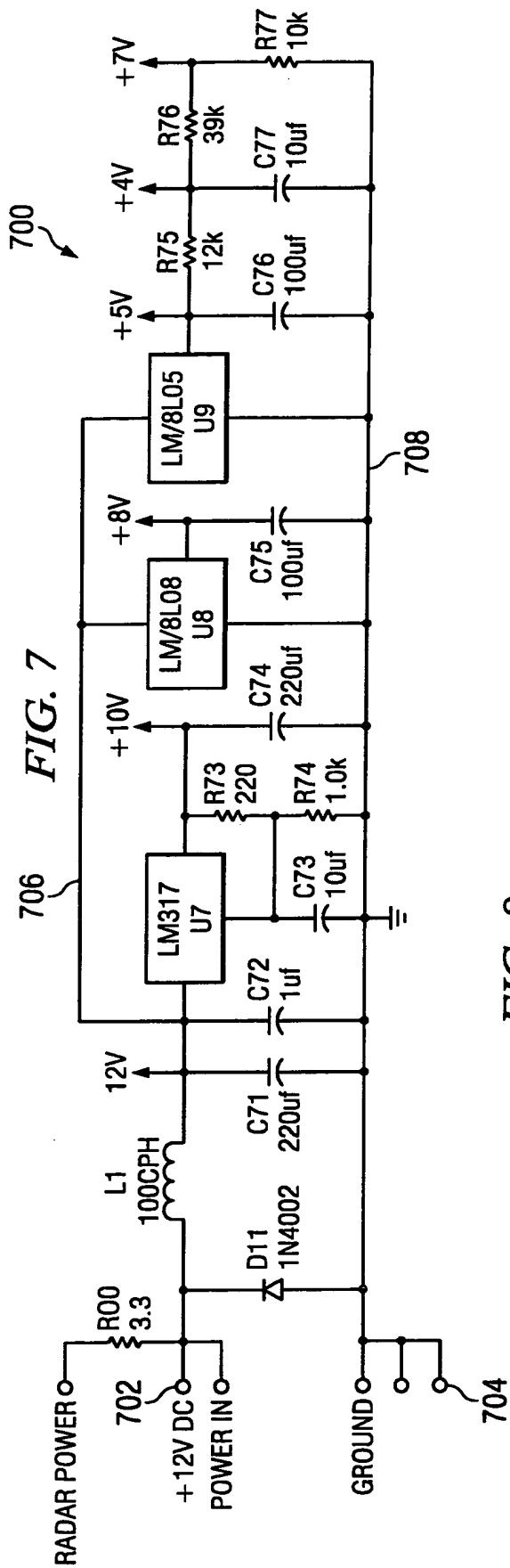
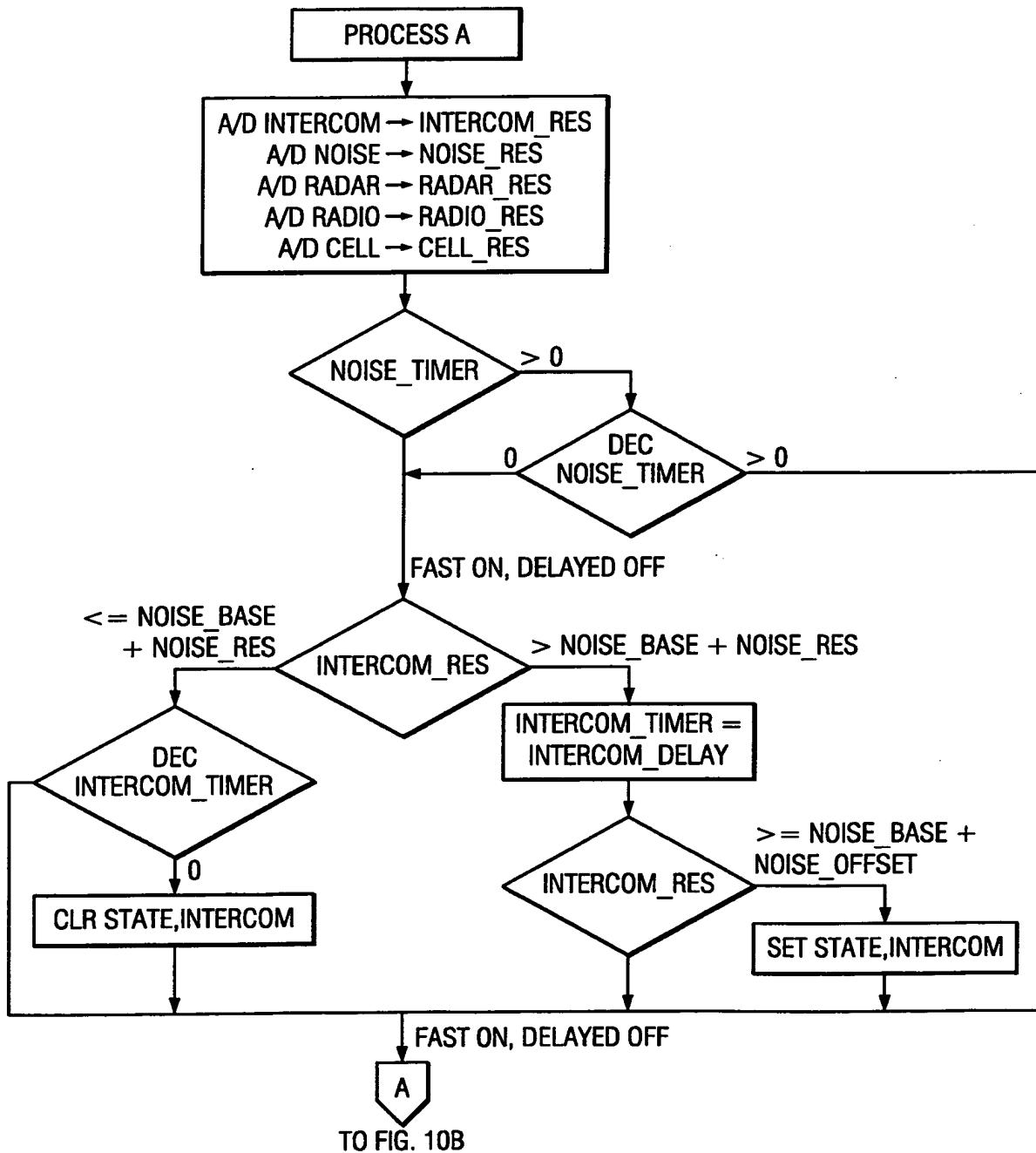


FIG. 10A



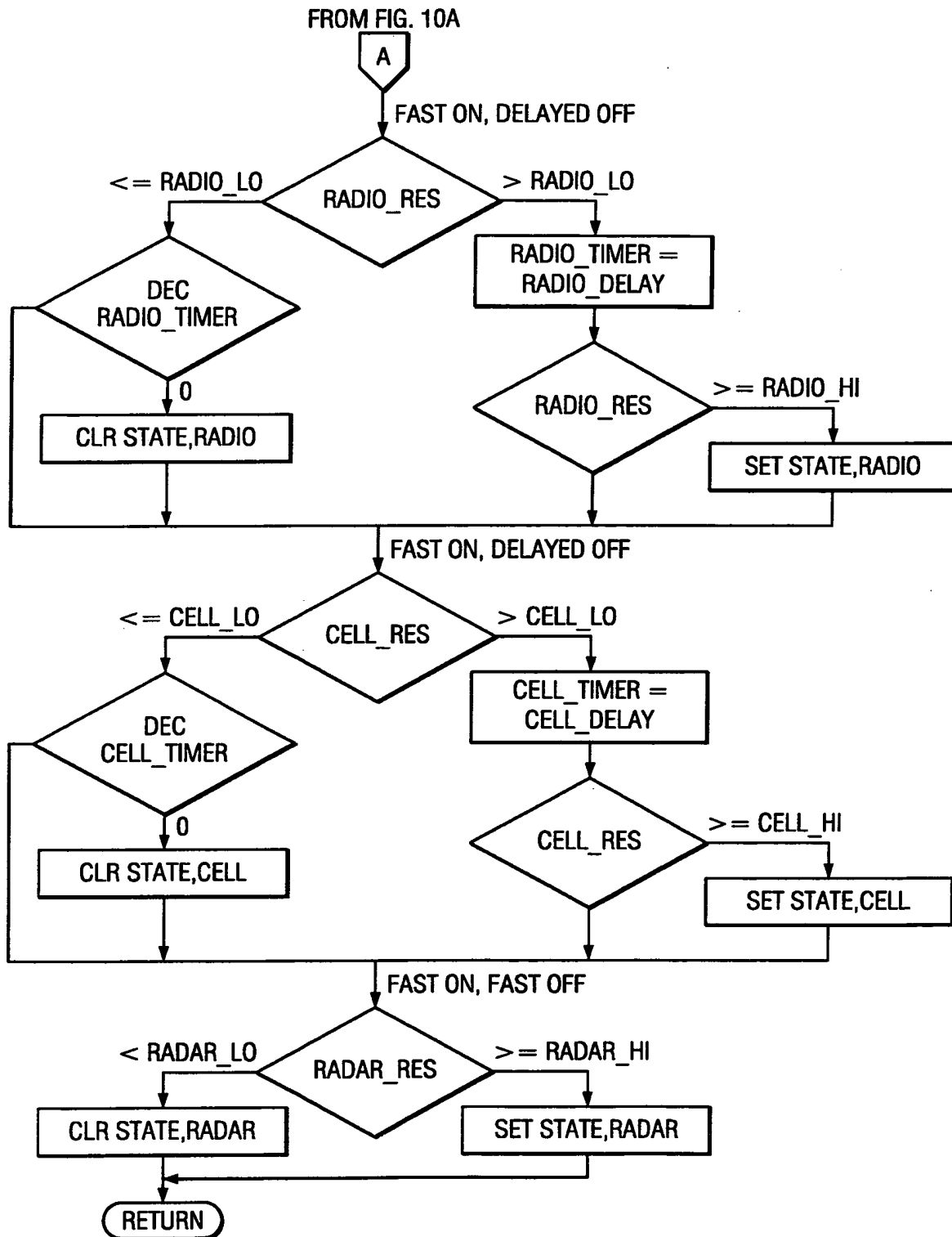


FIG. 10B

```

graph TD
    Start([START]) --> PTT_TEST[PTT TEST]
    PTT_TEST --> PTT_OFFTIMER{PTT_OFFTIMER}
    PTT_OFFTIMER -- 0 --> SET_STATE_INTERCOM[SET STATE, INTERCOM]
    PTT_OFFTIMER -- > 0 --> DEC_PTT_OFFTIMER{DEC PTT_OFFTIMER}
    DEC_PTT_OFFTIMER -- > 0 --> PTT_TEST
    DEC_PTT_OFFTIMER -- 0 --> CLR_STATE_PTTMUTE[CLR STATE, PTTMUTE]
    CLR_STATE_PTTMUTE --> INTERCOM_TIMER[INTERCOM_TIMER = INTERCOM_DELAY]
    INTERCOM_TIMER --> SET_STATE_INTERCOM
    SET_STATE_INTERCOM --> PTT{PTT}
    PTT -- 1 (OFF) --> STATE_PTT_1{STATE, PTT}
    STATE_PTT_1 --> CLR_STATE_PTT[CLR STATE, PTT]
    CLR_STATE_PTT --> PTT_OFFTIMER_SET[PTT_OFFTIMER = PTT_OFFDELAY]
    PTT_OFFTIMER_SET --> RETURN([RETURN])
    PTT -- 0 (ON) --> STATE_PTT_0{STATE, PTT}
    STATE_PTT_0 -- 1 --> SET_STATE_PTT[SET STATE, PTT]
    SET_STATE_PTT --> SET_STATE_PTTMUTE[SET STATE, PTTMUTE]
    SET_STATE_PTTMUTE --> PTT_ON_TIMER[PTT_ONTIMER = PTT_ONDELAY]
    PTT_ON_TIMER --> RETURN
    STATE_PTT_0 -- 0 --> RETURN
  
```

```

graph TD
    Start([START]) --> ProcessB[PROCESS B]
    ProcessB --> Cell{CELL}
    Cell -- 1 --> SetCellTimer[CELL_TIMER = CELL_DELAY]
    Cell -- 0 --> DecCellTimer{DEC CELL_TIMER}
    SetCellTimer --> SetStateCell[SET STATE, CELL]
    DecCellTimer -- 1 --> SetStateCell
    DecCellTimer -- 0 --> ClrStateCell[CLR STATE, CELL]
    ClrStateCell --> Radar{RADAR}
    SetStateCell --> Radar
    Radar -- 1 --> SetStateRadar[SET STATE, RADAR]
    Radar -- 0 --> ClrStateRadar[CLR STATE, RADAR]
    SetStateRadar --> Return([RETURN])
    ClrStateRadar --> Return
  
```


FIG, 12

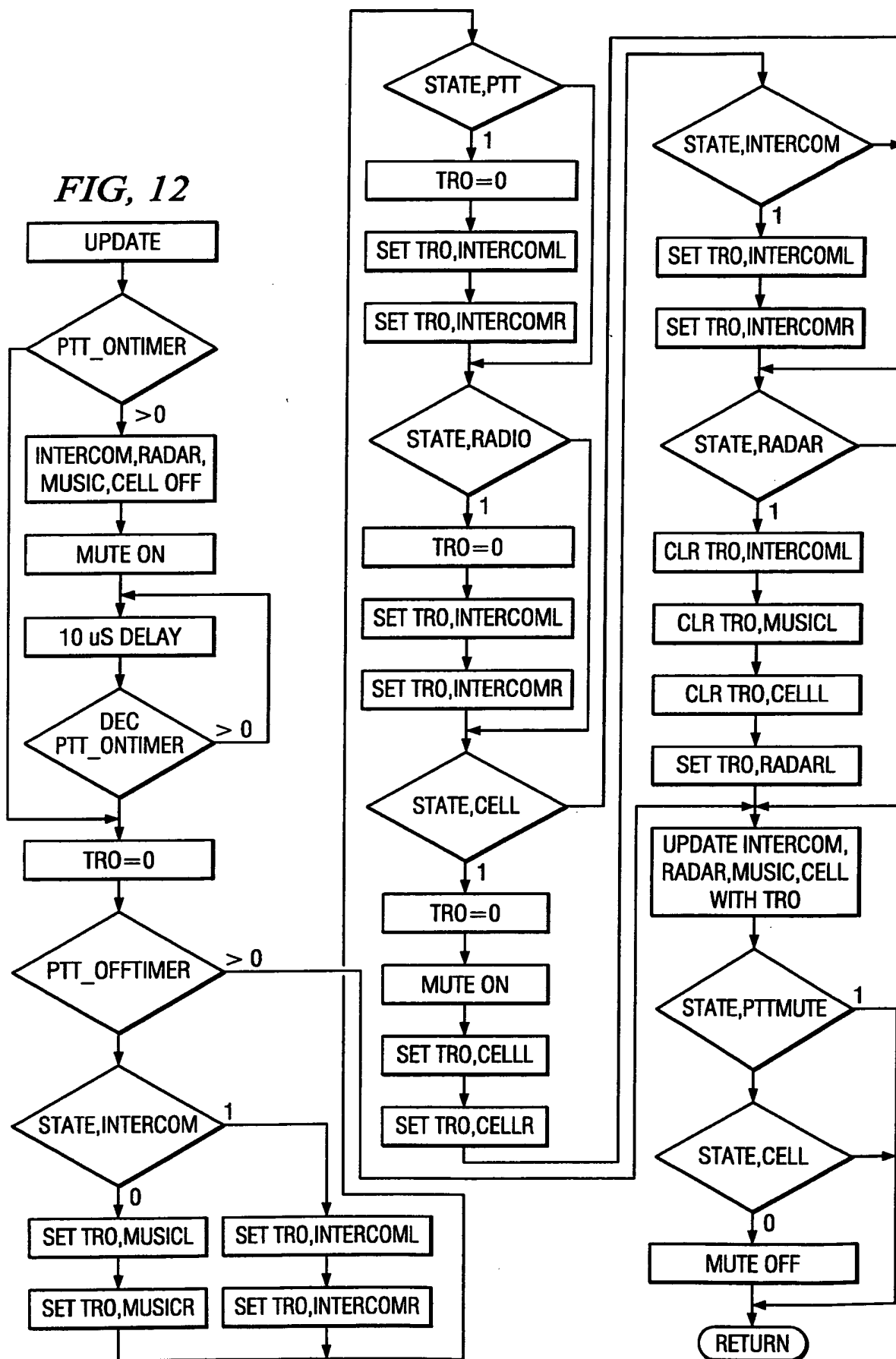


EXHIBIT B

References relied upon by the Examiner in the final rejection of the claims:

1. U.S. Patent No. 5,722,069 to Donner.
2. U.S. Patent No. 4,484,344 to Mai et al.
3. U.S. Patent No. 6,272,362 to Wang.
4. U.S. Patent No. 3,586,977 to Lustig et al.
5. U.S. Patent No. 6,420,975 to DeLine et al.
6. U.S. Patent No. 5,910,996 to Eggers et al.
7. U.S. Patent No. 5,243,640 to Hadley et al.
8. U.S. Patent No. 5,635,925 to Kishi et al.

RELATED PROCEEDINGS APPENDIX

Not applicable.

EXHIBIT B

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4. U.S. Patent No. 3,586,977 to Lustig et al.
5. U.S. Patent No. 6,420,975 to DeLine et al.
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8. U.S. Patent No. 5,635,925 to Kishi et al.

RELATED PROCEEDINGS APPENDIX

Not applicable.